IN THE CLAIMS

Please cancel claims 42-44 without prejudice.

Please amend claims 1-6, 10-15, 19-24, 28-30, 36-41, and 45-47 as follows:

--1. (CURRENTLY AMENDED) A centrifugal separation system comprising:

fluid delivery means ~~to~~ for providinge a cylindrical vortex fluid flow;

a separation chamber ~~to~~ for containing ~~separate unwanted material from~~ said fluid flow; and

a collector ~~to~~ for collecting ~~said separated~~ matter ~~material~~;

wherein said fluid flow centrifugally ejects said matter therefrom into said separation chamber.

2. (CURRENTLY AMENDED) A centrifugal separation system according to claim 1 wherein said fluid delivery means ~~comprises~~ is powered by a motor.

3. (CURRENTLY AMENDED) A centrifugal separation system according to claim 1 wherein said fluid delivery means ~~comprises~~ is powered by an electrical motor.

4. (CURRENTLY AMENDED) A centrifugal separation system according to claim 1 wherein said fluid delivery means ~~comprises~~ is powered by a combustion motor ~~powered by combustion~~.

5. (CURRENTLY AMENDED) A centrifugal separation system according to claim 1 wherein said fluid delivery means is powered by a motor that is powered by compressed gas.

6. (CURRENTLY AMENDED) A centrifugal separation system according to claim 1 wherein said fluid delivery means is powered by a motor that is powered by a flowing fluid.

7. (ORIGINAL) A centrifugal separation system according to claim 1 wherein said separation chamber is cylindrical.

8. (ORIGINAL) A centrifugal separation system according to claim 1 wherein said fluid delivery means comprises an impeller assembly.

9. (ORIGINAL) A centrifugal separation system according to claim 1 wherein said fluid delivery means comprises a centrifugal pump.

10. (ORIGINAL) A centrifugal separation system according to claim 1 wherein said fluid delivery means comprises propellers.

~~10~~ 11. (CURRENTLY AMENDED) A centrifugal separation system according to claim 1 wherein said fluid delivery means comprises at least one propeller~~s~~.

~~11~~ 12. (CURRENTLY AMENDED) A centrifugal separation system according to claim 1, wherein said collector and said separation chamber are configured such that a ~~the~~ pressure is developed in said collector that is greater than the pressure in said separation chamber.

~~12~~ 13. (CURRENTLY AMENDED) A centrifugal separation system according to claim 1, wherein said matter is selected from the group consisting of dust, ~~that is capable of separating large objects, such as~~ nails, screws, nuts, dirt, and sand~~, as well as small particles, such as dust and other particulate matter~~.

14~~13~~. (CURRENTLY AMENDED) A centrifugal separation system according to claim 1 further comprising an inner tube and an outer tube, said inner tube and said outer tube being coaxial and coupled to said separation chamber, wherein the gap between said inner tube and said outer tube forms~~ing~~ an annular duct.

15~~14~~. (CURRENTLY AMENDED) A centrifugal separation system comprising:

fluid delivery means for providing a fluid flow;

a separation chamber for separating matter from said fluid flow;

a collector for collecting said separated matter;

~~A centrifugal separation system according to claim 1 further comprising:~~

an inner tube and an outer tube, said inner tube and outer tube forming an annular duct; and

flow straightening vanes provided within said annular duct to straighten said fluid flow.

16 ~~15~~. (CURRENTLY AMENDED) A centrifugal separation system comprising:

fluid delivery means to providinge a fluid flow;

a separation chamber for separating matter from said fluid flow;

a collector for collecting said separated matter;

~~A centrifugal separation system according to claim 1 further comprising~~

an inner tube and an outer tube, said inner tube and said outer tube forming an annular duct, said annular duct ~~and~~ ending in a toroidal vortex nozzle.

17 ~~16~~. (ORIGINAL) A centrifugal separation system according to claim 1 wherein said collector is removable for emptying the contents of said collector.

18 ~~17~~. (ORIGINAL) A centrifugal separation system according to claim 1 wherein said collector further comprises a door for emptying the contents of said collector.

19 ~~18~~. (ORIGINAL) A centrifugal separation system according to claim 1 wherein said collector further comprises a removable stopper for emptying said collector.

20 ~~19~~. (CURRENTLY AMENDED) A centrifugal separation system comprising:

fluid delivery means ~~to~~ for providinge a fluid flow;

a separation chamber ~~to~~ for separatinge ~~unwanted material~~ matter from said fluid flow; ~~and~~

a collector ~~to~~ for collecting said matter ~~unwanted materials~~;

an opening in the wall of said ~~centrifugal~~ separation chamber, said opening leading into said ~~dust~~ collector;

an outer tube coupled to said ~~centrifugal~~ separation chamber; and

an inner tube located inside said outer tube, said inner tube and said outer tube being coaxial, wherein the gap between said inner tube and said outer tube forms an annular duct.

21 ~~20~~. (CURRENTLY AMENDED) A centrifugal separation system according to claim 19 wherein said fluid delivery means ~~comprises~~ is powered by a motor.

21. (CURRENTLY AMENDED) A centrifugal separation system according to claim 19 wherein said fluid delivery means ~~comprises~~ is powered by an electrical motor.

22. (CURRENTLY AMENDED) A centrifugal separation system according to claim 19 wherein said fluid delivery means ~~comprises~~ is powered by a combustion motor ~~powered by combustion~~.

23. (CURRENTLY AMENDED) A centrifugal separation system according to claim 19 wherein said fluid delivery means is powered by a motor that is powered by a compressed gas.

24. (CURRENTLY AMENDED) A centrifugal separation system according to claim 19 wherein said fluid delivery means is powered by a motor that is powered by a flowing fluid.

25. (ORIGINAL) A centrifugal separation system according to claim 19 wherein said separation chamber is cylindrical.

26. (ORIGINAL) A centrifugal separation system according to claim 19 wherein said fluid delivery means comprises an impeller assembly.

27. (ORIGINAL) A centrifugal separation system according to claim 19 wherein said fluid delivery means comprises a centrifugal pump.

28. (CURRENTLY AMENDED) A centrifugal separation system according to claim 19, wherein said fluid delivery means comprises at least one propellers.

29. (CURRENTLY AMENDED) A centrifugal separation system according to claim 19, wherein said collector and said separation chamber are configured such that a ~~the~~ pressure is developed in said collector that is greater than the pressure in said separation chamber.

30. (CURRENTLY AMENDED) A centrifugal separation system according to claim 19, wherein said matter is selected from the group consisting of dust, ~~centrifugal separation system is capable of collecting large objects, such as~~ nails, screws, nuts, dirt, and sand~~, as well as small particles, such as dust and other particulate matter~~.

31. (ORIGINAL) A centrifugal separation system according to claim 19 further comprising:

flow straightening vanes provided within said annular duct to straighten said fluid flow.

32. (ORIGINAL) A centrifugal separation system according to claim 19 wherein said inner and outer tubes end in a toroidal vortex nozzle.

33. (ORIGINAL) A centrifugal separation system according to claim 19 wherein said collector is removable for emptying the contents of said collector.

34. (ORIGINAL) A centrifugal separation system according to claim 19 wherein said collector further comprises a door for emptying the contents of said collector.

35. (ORIGINAL) A centrifugal separation system according to claim 19 wherein said collector further comprises a removable stopper for emptying said collector.

36. (CURRENTLY AMENDED) A method of centrifugally separating matter from a fluid comprising the steps of:

~~delivering a~~ providing a cylindrical vortex fluid flow ~~to~~ within a separation chamber; and

~~allowing~~ centrifugally ejecting said matter ~~to carry~~ into a collector.

37. (CURRENTLY AMENDED) A method according to claim 36 wherein said fluid flow is delivered to said separation chamber via ~~from~~ an inner tube coupled thereto.

38. (CURRENTLY AMENDED) A method according to claim 36 wherein said fluid flow exits ~~from~~ said separation chamber via an annular duct created between an inner tube and an outer tube, wherein said inner tube ~~being for~~ deliver~~sing~~ said fluid flow to said separation chamber, ~~and an outer tube,~~ and wherein said inner tube and said outer tube ~~being~~ are coaxial.

39. (CURRENTLY AMENDED) A method according to claim 36 further comprising the step of creating a higher pressure in said collector than in said ~~centrifugal~~ separation chamber such that said cylindrical vortex ~~circular~~ fluid flow is maintained without impeding said matter from carrying into said collector.

40. (CURRENTLY AMENDED) A method according to claim 38, ~~36 wherein said fluid flow exits from said centrifugal separation chamber via an annular duct created between an inner tube, said inner tube being for delivering said fluid flow, and an outer tube, said inner tube and said outer tube being coaxial,~~ wherein said annular duct straightens said fluid flow.

41. (CURRENTLY AMENDED) A method according to claim 38, wherein ~~36 further comprising the step of providing concentric inner and outer tubes for delivering and expelling said fluid, said annular duct ending with~~ a toroidal vortex nozzle is located at the distal end of said inner tube and said outer tube.

42. (CANCELLED)

43. (CANCELLED)

44. (CANCELLED)

45. (CURRENTLY AMENDED) A method according to claim 36 wherein ~~said delivering is performed by~~ an impeller provides~~, wherein said impeller performs the step of creating a~~ said cylindrical vortex fluid flow.

46. (CURRENTLY AMENDED) A method according to claim 36 wherein ~~said delivering is performed by~~ at least one propeller provides~~, wherein said propeller performs the step of creating a~~ said cylindrical vortex fluid flow.

47. (CURRENTLY AMENDED) A method according to claim 36 wherein ~~said delivering is performed by~~ a centrifugal pump provides~~, wherein said centrifugal pump performs the step of creating a~~ said cylindrical vortex fluid flow.--